

CLAIMS

1. A method for secure transmissions, the method comprising:
 - 2 determining a registration key specific to a participant in a transmission;
determining a first key;
 - 4 encrypting the first key with the registration key;
determining a second key;
 - 6 encrypting the second key with the first key; and
updating the first and second keys.
2. The method as in claim 1, wherein updating further comprises:
 - 2 updating the first key according to a first time period; and
updating the second key according to a second time period, wherein the
 - 4 second time period is less than the first time period.
3. The method as in claim 2, wherein updating further comprises:
 - 2 encrypting an updated first key with the registration key ; and
encrypting an updated second key with the updated first key.
4. The method as in claim 2, further comprising:
 - 2 encrypting a broadcast stream of information using the second key; and
transmitting the encrypted broadcast stream of information.
5. The method as in claim 4, wherein the broadcast stream of information
 - 2 comprises video information.
6. The method as in claim 4, wherein the broadcast stream of information
 - 2 comprises Internet Protocol packets.
7. The method as in claim 3, further comprising:
 - 2 calculating a registration key information message; and
transmitting the registration key information message.

8. The method as in claim 7, further comprising:

- 2 calculating a first key information message corresponding to the updated
 and encrypted first key; and
- 4 transmitting the first key information message.

9. The method as in claim 8, further comprising:

- 2 calculating a second key information message corresponding to the
 updated and encrypted second key; and
- 4 transmitting the second key information message.

10. The method as in claim 1, further comprising:

- 2 transmitting the encrypted first key; and
 transmitting the encrypted second key.

11. A method for secure reception of a transmission, the method comprising:

- 2 receiving a registration key specific to a participant in a transmission;
 receiving a first key;
- 4 decrypting the first key with the registration key;
 receiving a second key;
- 6 decrypting the second key with the first key;
 receiving a broadcast stream of information; and
- 8 decrypting the broadcast stream of information using the second key.

12. The method as in claim 11, further comprising:

- 2 storing the first key in a secure memory storage unit; and
 storing the second key in a memory storage unit.

13. The method as in claim 11, further comprising:

- 2 recovering the first key from a first key information message; and
 recovering the second key from a second key information message.

14. The method as in claim 11, further comprising:

- 2 updating the first key according to a first time period; and
 updating the second key according to a second time period.

15. In a wireless communication system supporting a broadcast service option,
an infrastructure element comprising:
a receive circuitry;
a user identification unit, operative to recover a short-time key for
decrypting a broadcast message, comprising:
processing unit operative to decrypt key information;
memory storage unit for storing a registration key; and
a mobile equipment unit adapted to apply the short-time key for
decrypting the broadcast message.

16. The infrastructure element as in claim 15, wherein the short-time key is
processed by the user identification unit and passed to the mobile equipment
unit.

17. The infrastructure element as in claim 15, wherein the memory storage unit
is a secure memory storage unit.

18. The infrastructure element as in claim 15, wherein the memory storage unit
stores a broadcast access key, and wherein the processing unit decrypts the
short-time key using the broadcast access key.

19. The infrastructure element as in claim 18, wherein the short-time key is
updated at a first frequency.

20. The infrastructure element as in claim 19, wherein the broadcast access key
is updated at a second frequency less than the first frequency.

21. The infrastructure element as in claim 15, wherein the broadcast service
option is a video service.

22. A wireless communication system, comprising:

means for determining a registration key specific to a participant in a
transmission;

- 4 means for determining a first key;
means for encrypting the first key with the registration key;
- 6 means for determining a second key;
means for encrypting the second key with the first key; and
- 8 means for updating the first and second keys.

23. An infrastructure element, comprising:

- 2 means for receiving a registration key specific to a participant in a
transmission;
- 4 means for receiving a first key;
means for decrypting the first key with the registration key;
- 6 means for receiving a second key;
means for decrypting the second key with the first key;
- 8 means for receiving a broadcast stream of information; and
means for decrypting the broadcast stream of information using the
- 10 second key.

24. A digital signal storage device, comprising:

- 2 first set of instructions for receiving a registration key specific to a
participant in a transmission;
- 4 second set of instructions for receiving a first key;
third set of instructions for decrypting the first key with the registration
- 6 key;
- fourth set of instructions for receiving a second key;
- 8 fifth set of instructions for decrypting the second key with the first key;
sixth set of instructions for receiving a broadcast stream of information;
- 10 and
seventh set of instructions for decrypting the broadcast stream of
- 12 information using the second key.